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Customer Profitability Tool for PR-Cosmetic Oy

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This thesis is a study into managerial accounting theories on customer profitability. The goal of the thesis is to produce a customized customer profitability tool for the commissioning company, PR-Cosmetic Oy.

The main objective of this thesis is to present a reliable and practical profitability calculator to analyse customer account profitability. The tool will be used by the management team of PR-Cosmetic Oy, Finland's leading professional skin care distributor, as a support for future managerial decisions as well as to further develop the company's services and activities.

To further analyse and understand the customer portfolio, the PR-Cosmetic Oy management team identified a need for a proper profitability calculator. Because the management team had not previously used any similar profitability calculators, the tool had to be designed to meet the needs of even inexperienced users, still providing valuable figures on profitability.

The thesis focuses on providing a tool to analyse the customers of PR-Cosmetic Oy. The tool is not applicable to calculating the profitability of the commissioning company itself.

In order to design a highly customized and well-functioning tool, a proper briefing interview was conducted and relevant managerial accounting theories were studied. Bachelor's thesis guidelines were also used to develop a sufficient framework for the thesis to establish a connection to the business environment.

In this thesis, the steps of designing the product are developed from information included in the theoretical framework. The recommendations and findings were concluded by an analysis of the thesis process as well as the outcome of the tool.

Keywords
Customer profitability, cost management, revenue management, activity-based costing

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1 Introduction

This thesis focuses on providing a tool for analysing the profitability of the commissioning company's B2B customer base. The customer account profitability calculator will provide insight and support for the company's future managerial decisions. All theories, concepts and methods used in building this thesis and designing the tool itself will be covered in this academic paper. The last two chapters focus on presenting the tool as well as the findings and recommendations related to the thesis process.

This chapter will provide the outline of this thesis, focusing on introducing the objective of the project, defining the project scope as well as explaining the main concepts regarding this paper. The commissioning company introduction and benefits to the stakeholders will also be covered in this introduction.

1.1 Topic of this thesis

The purpose of this project thesis is to design a customer account profitability model for the commissioning company PR-Cosmetic Oy. The aim is to provide a more reliable and accurate method for the company to analyse the health of their customer accounts. In many occasions the conventional method of evaluating the profitability of specific customer accounts by simply calculating the revenues and earned profits is inadequate and will lead to misvaluing certain accounts. Considering the business model of the commissioning company, more accurate allocation of costs will play a major role in analysing the profitability of each customer account and thus will be one focus area of this thesis.

The objective and outcome of this project is a customer account profitability tool for PR-Cosmetic Oy. The thesis process is divided into six tasks which can be found in the Table 1. A more detailed overlay matrix, introducing the project tasks and methods, as well as the theoretical framework including outcomes, can be found as appendices at the end of this paper.

Project Task	
PT 1	Define the outline and focus of the project thesis
PT 2	Build the theory base for the tool
PT 3	Design the customer account profitability tool
PT 4	Introduce the beta tool for the commissioning company
PT 5	Based on the feedback adjust the tool and design the user manual
PT 6	Analyse the results and give recommendations

Table 1. Project tasks

It is relevant to note that the author of this thesis has been formerly employed by PR-Cosmetic Oy and he thus has a great understanding of the company and its business environment. The company has acknowledged that there is a need for a more accurate method of analysing the profitability of its customers. Due to the company's business model, customers have various indirect costs, mostly related to customer service and sales support, from which a majority has not been properly allocated to specific customers. Properly allocating these costs as well as calculating actual price reductions will provide new insight and data on the health of the company's customer accounts.

The business processes (such as customer service, marketing and sales) of PR-Cosmetic Oy are well developed and well-functioning, but the company lacks proper data analysis knowledge and the tools required for in-depth analysis on the health of their customer portfolio. For that reason, this thesis will greatly benefit PR-Cosmetic Oy.

1.2 Case company

The case company for this thesis is a leading Finnish professional skin care distributor PR-Cosmetic Oy. PR-Cosmetic Oy is a small sized, Helsinki based distributor for skincare brands Dermalogica, Skincode and bt-Gear. The company currently employs approximately 10 employees.

PR-Cosmetic has a long history in the professional cosmetics industry in Finland. The company was originally founded in 1991 by Sirpa Alanko-Pöllänen and Kirsti Randström, who both still act as the operative management of the company. Over the years the company has been a distributor of several brands and has brought many new brands to the Finnish markets. Approximately 10 years ago PR-Cosmetic Oy became Finland's first official distributor of the world's leading professional skin care brand Dermalogica. Currently PR-Cosmetic Oy's customer base consists of around 150 businesses, of which most are independent entrepreneurs or small 1-2 person businesses operating in the skincare and pharmaceutical industries.

PR-Cosmetic Oy operates according to the universal Dermalogica business model. The core of PR-Cosmetic's business model is to provide customers with additional services such as marketing assistance, a shared e-commerce platform and education in skincare. Because of the small size of the retailers, this model plays a huge role in making Dermalogica the most business oriented professional skin care brand in the world. However, providing these complex services for free generates a lot of costs and at the moment these costs and consumption of related activities are not traced to individual customers. These services are provided to help increase retailer revenues and purchases but nonetheless should all the related costs be allocated to each client. Allocation would provide deeper understanding of the profitability of an individual customer account.

1.3 Project Scope

This thesis will solely concentrate on customer account profitability. Neither the thesis or the tool will include any information related to the profitability of the commissioning company itself. The key focus of this thesis will be providing an accurate allocation system for allocating indirect costs to each customer account.

The scope of this thesis was chosen in cooperation with the commissioning company. It was essential that collecting and auditing the necessary information for the tool would not require an overwhelming amount of resources but that the tool will still provide credible and accurate results.

1.4 International Aspect

As a distributor of extremely well-known international brands, PR-Cosmetic Oy is a highly international company operating as an intermediary between the international manufacturers and Finnish retailers. Dermalogica as a brand is highly uniform and thus the international cooperation is strong. All profitability figures will also be used to communicate the latest financial results to the brand's headquarters.

With the scope of this thesis being customer profitability, the thesis will mainly concentrate on the Finnish market and the international aspect will have a significantly smaller role.

1.5 Benefits

This thesis will greatly benefit the commissioning company PR-Cosmetic. For PR-Cosmetic Oy this thesis will provide useful insight on the profitability of individual customer accounts which can then be utilized in making future managerial decisions. With the information provided by the tool produced in this thesis the company will be able to identify the most valuable customer accounts

as well as locate those customers that need more guidance and attention in order to increase their profitability.

The insight provided by the tool can also be used to determine the value of PR-Cosmetic Oy's distribution business against their e-commerce function. Currently PR-Cosmetic Oy only monitors customer account profitability based on revenue derived from the sales on each account.

From the author's point of view, the thesis process and designing of the tool is extremely educational and a great learning experience. Applying familiar theories to practice for an actual company has proven to involve some difficulties and problems to be solved. Designing an easy and error-proof calculator has also developed the authors excel skills as well as knowledge on how to observe usability issues.

1.6 Key concepts

The following paragraphs briefly define the main concepts and models used in this thesis. These concepts are the foundation for the theoretical framework which follows. The concepts are organized in the order of general to more focused. Most of the concepts presented in this chapter are well-known managerial accounting concepts but some are more focused on certain topics.

1.6.1 Management accounting

Management accounting provides tools and insights for management decision making and performance management with financial information. The goal of management accounting is to help the management make strategic future decisions based on actual financial figures, ratios and estimations. (Bhimani, Horngren, Srikant & Rajan 2012, 3.)

1.6.2 Allocation (of costs and revenues)

Allocating costs and/or revenues is a process of tracking different costs and revenues to individual sources. Allocating costs and/or revenues helps to provide more accurate information to support future managerial decisions. (Bhimani & al. 2012, 135.)

1.6.3 Direct and indirect costs

Direct costs refer to costs which can be directly traced to a cost object in cost-effective way. This means that no cost allocation method is needed to allocate these costs. (Bhimani & al. 2012, 35.)

Indirect costs on the other hand are costs which cannot feasibly be traced to a specific cost object. For allocation of indirect costs a costing method, such as activity-based costing, is needed.

By using the chosen costing method, costs can be allocated to certain cost object. (Bhimani & al. 2012, 35.)

1.6.4 Cost of goods sold (COGS)

Cost of goods sold or COGS is one of the most significant concepts in managerial accounting theory. COGS refers to the cost of the goods sold during acertain time. COGS can be calculated using a simple formula presented in Figure 1. (Carbajo 12 May 2015.)

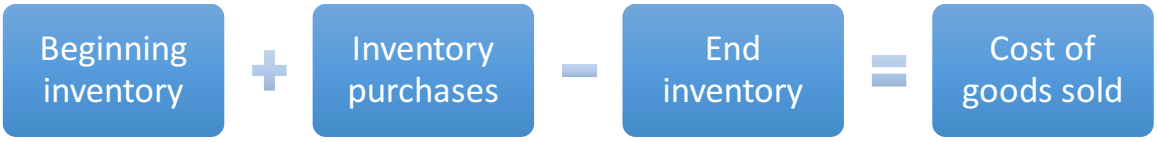

Figure 1. Calculating cost of goods sold (Reproduced from Garbajo 12 May 2015.)

1.7 Risks

There is only one identified noteworthy risk related to this project. The risk has to do with the actual theoretical systems used to build the tool itself. The outcome of this thesis, a customer profitability tool, greatly relies on the activity-based costing system. The activity-based costing system is a commonly used method but still may in some cases be difficult to implement. The system requires well-chosen activities as well as an accurate estimation of incurred costs. This may cause some difficulties with the commissioning company and for this reason it may take some time for PR-Cosmetic Oy to gather the required data needed to adjust the tool to give exact results. However, for this reason the tool is designed with the possibility to alter and edit the activities in the future. This will provide the commissioning company the opportunity to modify the data after gathering some practical experience on the usage of the tool.

2 Data collection methods

As seen in Figure 2 below, the data used for this thesis has been collected using two different data collection methods. Firstly, the background information needed to start designing the profitability tool was collected by a qualitative face-to-face interview. After that the theory was collected and the tool designed using a desktop research method. All collected data was analyzed using managerial accounting concepts. Figure 2 also shows how each project phase relates to each project task.

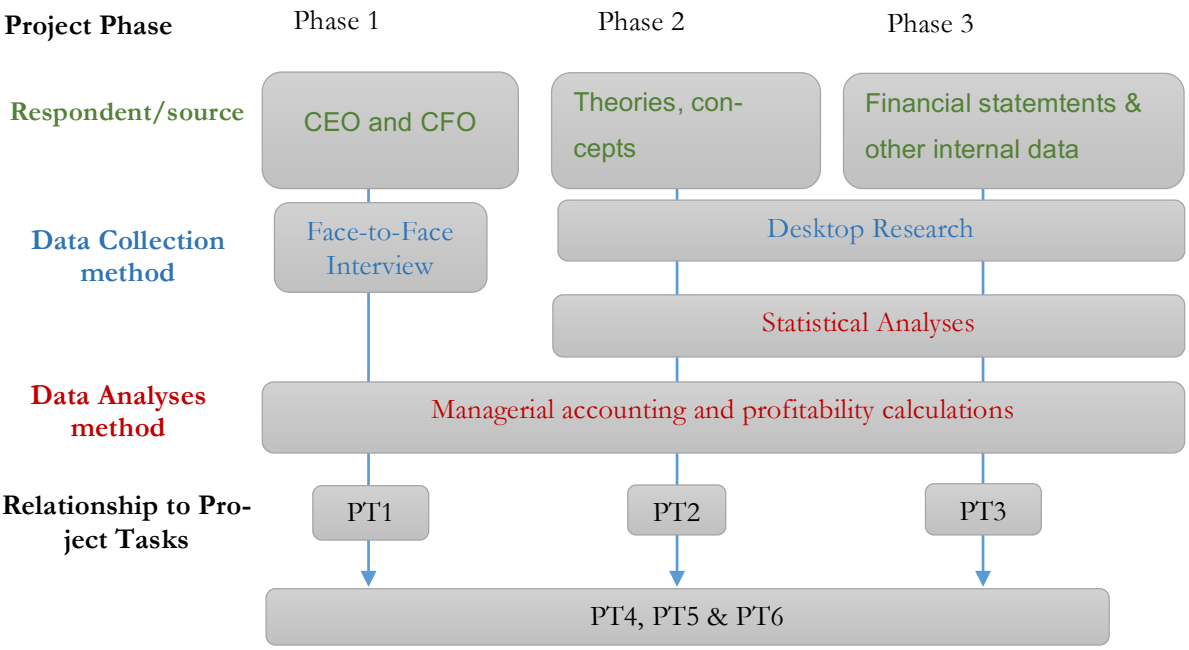

Figure 2. Thesis process and data collection methods

2.1 Interviews

The briefing interview played a major role in planning and designing the profitability tool itself. Even as the author of this thesis had previously been employed by the commissioning company, there was some important information needed to design the tool which could only be provided by the company management. Also the needs of the company had to be taken into account to ensure that the profitability tool provides insight to questions and difficulties that the commissioning company currently has concerning customer profitability.

The interview was conducted face-to-face with the commissioning company CEO and CFO. Communication with the management continued during the whole thesis process to ensure the best possible outcome.

Besides utilizing the face-to-face meeting, the most urgent and minor matters were discussed briefly over the phone. This was necessary to avoid excessive use of the company management resources.

Much of the information provided in the occurred interviews was stated as confidential and for that reason will not be shared in this thesis. Especially all financial data provided to test the functionality of the tool was classified as confidential and is not presented in this thesis. The management provided both qualitative information and feedback as well as actual numerical data to be used to build and test the tool. However, any actual numerical data related to the customers will not be shared here. Numerical data was only used to test the functionality of the tool.

2.2 Desktop research

The desktop research related to this thesis included study and analysis of different managerial accounting theories as well as the data provided by the commissioning company. Managerial accounting theories presented in the theoretical framework create the foundation for building a reliable customer profitability tool for the commissioning company. This required conducting extensive research on suitable managerial account theories, concepts and methods.

3 Customer account profitability

This chapter covers the theoretical framework utilized in this thesis. The chapter will focus on presenting the relevant theories, concepts and methods as well as application of the theory to the final product for the commissioning company. Each subheading will begin by introducing a theory, followed by guidelines on how that theory is applied to use in the profitability tool.

The theoretical framework of this thesis consists of a variety of managerial accounting theories. Analyzing customer profitability requires the use of both simple revenue and cost accounting theories as well as customer-profitability analysis methods.

3.1 Sales revenue and revenue management

When a company exchanges products and/or services it usually receives a positive inflow of assets, called as revenues. There are many things affecting the final revenue, such as the output volume and selling prices. These factors are called revenue drivers and most commonly a company has many different revenue drivers. Evaluation of customer profitability begins by monitoring inflow of assets from each customer. (Bhimani & al. 2012, 235)

PR-Cosmetic tracks the revenues of each customer through their electronic ERP-system. The revenue information from the ERP-system is to be inputted to the revenues field of the tool based on the instructions in user manual found in the appendix. (Appendix 1.)

3.1.1 Discounting / promotional pricing

To derive accurate profitability analysis, the key in monitoring the revenues is to audit carefully all price reductions (discounts). As former studies have shown, the major reason for customers being more unprofitable than expected are in fact price discounts. (Bhimani & al. 2012, 391)

Discounting or promotional pricing refers to a revenue management technique used to stimulate demand and increase sales. These price reductions may be offered based on various occasions and reasons but the goal is always to boost sales in slow periods. For example, by directing demand and revenues from high seasons to the low season, the company will avoid situations where the demand will exceed current capacity. (Huefner 2011, 79.)

As willingness to pay varies from customer to customer, customer specific price reductions are a possible way to increase the total demand and revenues. However, promotional pricing and price reductions should always be well planned to avoid affecting the full-price business. (Huefner 2011, 79.)

A problem in promotional pricing is that with too frequent discounting customers will learn to expect the discounts and the benefit will be lost. Many companies and even industries have completely destroyed the influence of discounting with too predictable promotional campaigns. This problem, however, is easily avoided with infrequent discount campaigns. (Huefner 2011, 79-80.)

In B2B markets, price negotiations are typical and thus discounting is frequent. Unnecessary price negotiations and competitive bidding is a situation which can significantly lower the revenues of the seller. (Huefner 2011, 80.)

Internal analysis is in place when offering price reductions. By reducing prices to increase revenues a company has to be alert not to eat out the profits. Profit margin and the cost structure of a firm has a great effect on the profitability of price reductions. (Huefner 2011, 80-81.)

During the interviews with PR-Cosmetic Oy one of the main concerns that surfaced was discounting. Besides offering seasonal promotional pricing campaigns, the company is also through price negotiations required to offer discounts to certain big customers. The belief of the management was that these discounts greatly affect the profitability of these big customers.

3.1.2 Net Sales

From the perspective of PR-Cosmetic Oy the most important and reliable revenue figure is the net sales. This is the true net value of money inflow from each customer and this may sometimes even greatly diverge from the sales revenue. By comparing sales revenue to net sales the company will also get a great understanding on future discounting and promotional pricing decisions.

3.2 Gross profit & gross margin

Gross profit defines the profits made through net sales after deduction of cost of goods sold. Gross profit is explained below in figure 3. (Bhimani & al. 2012, 249.)

Figure 3. Calculating gross profit

As shown in Figure 4, gross margin on the other hand compares the gross profit to the net sales. The figure is a great indicator to represent how much revenue is the company actually able to retain. (Bhimani & al. 2012, 249.)

Figure 4. Calculating gross margin

For the commissioning company the gross profit and gross margin ratios shown by the tool provide important insight on the actual revenue each customer brings in. By comparing the gross profit margins of specific customers the company will be able to get accurate information on how much the given discounts tax the gross profit of certain customers.

3.3 Operating profit & operating margin

Operating profit refers to the exact profits made through the company's core operations. Operating profit can also be called EBIT, referring to earnings before interest and tax. Operating profit is calculated by reducing total costs from the operational revenues (=gross profit). Much like gross margin, operating margin is calculated by dividing operating profit with gross profit and multiplying it with 100 to end up with a percentage value. (Bhimani & al. 2012, 235.)

In the case of the commissioning company, operating profit and operating margin are the most important figures provided by the tool. Operating profit will provide the best indication on whether a customer is actually profitable. Operating margin on the other hand gives great insight on how efficiently in a specific customer relationship revenues are converted to actual profits. Most probably the largest customers will provide the most profits but will at the same time have significantly lower operating margin. By identifying the customers with low operating margin and analyzing the related costs, the commissioning company may be able find key areas to enhance the profitability of that account.

3.4 Cost accounting and cost management

Cost accounting is always one of the key pillars of successful managerial accounting. Understanding costs plays an extremely important role on making future business decisions as well as calculating and optimizing profitability. (Bhimani & al. 2012, 33.) Cost accounting concentrates on company's consumption of resources. Consumption is measured and reported for managerial and financial accounting purposes. (Bhimani & al. 2012, 3.) The main reason for recognizing the cost structure is to then be able to contain and control the costs in the future. (Bhimani & al. 2012, 33.)

By allocating indirect and tracing direct accumulated costs to cost objects such as activities or further to customers is the main objective of cost accounting. Direct costs refer to costs which can be directly traced to certain product, activity or customer, whereas indirect costs need to be allocated by a suitable allocation method. (Bhimani & al. 2012, 34-36.)

With the information provided by the cost accounting a company's management will be able to take cost related actions, this is called cost management. As many managerial decisions have long impact on the incurring costs, cost management usually has broad focus and cost management is actually implemented into the general company strategy. (Bhimani & al. 2012, 4.)

The determination of an allocation method is an important and difficult task. By faulty allocation company's management may make decisions which do not support the company's net income growth in the future. (Bhimani & al. 2012, 152)

The main focus in this customer profitability tool is cost accounting. Due to PR-Cosmetic Oy's business model there are several services provided to the customers without any extra cost. Having a lot of indirect and previously unallocated costs, even an indicative allocation of these costs based on a customer gives important insight on the customer account health.

3.4.1 Activity-based costing (ABC)

The simplest way to divide the costs to different cost objects would simply be to use averages and divide the costs equally. This cost smoothing process, however, easily leads to under- and overcosting of cost objects. Undercosting and overcosting refers to the situation where the cost object's consumption of resources does not correspond with the reported total costs, and thus can greatly distort the profitability. (Bhimani & al. 2012, 336.)

In order to display a realistic representation of costs and profits, more advanced cost allocation methods are usually utilized. Activity-based costing (ABC) is one of the most commonly utilized cost allocation system used to allocate indirect costs to costs objects based on the consumption of certain activities. An activity may refer to a certain unit of work or a specific task and most commonly they are allocated to products or services. However, to further develop this system, in this thesis the activities are to be allocated to specific customers. (Bhimani & al. 2012, 341.) A simplified representation of ABC is presented in Figure 5. Figures shows how costs are allocated to the cost objects using activities. (Bhimani & al. 2012, 342.)

Figure 5. Activity-based costing process (Reproduced from Bhimani & al. 2012, 342.)

When utilizing ABC the costing process can be divided into the seven steps presented in figure 6. The first (1.) step of the process is to identify the cost objects. This can, based on the nature of the business and the purpose of the costing, be either services, products or customers. The second (2.) step includes identifying and tracing all direct costs such as certain labour costs or other cost of goods sold. (Bhimani & al. 2012, 345-348.)

In the third (3.) phase proper cost-allocation bases are chosen. This refers to the activities to be used in allocation. It is important to choose correct cost-allocation bases and consider the availability of the data ja measures. The forth (4.) step is to assign indirect costs to chosen cost-allocation bases. As possible the costs should be directly assigned to activities but for some indirect costs it may be necessary to examine the processes further to find the correct balance. (Bhimani & al. 2012, 345-348.)

Fifth (5.) task is to calculate rate per unit for every activity. The sixth (6.) step includes actual calculation of the indirect costs of each activity/cost-allocation base based on the usage of activities. In the last (7.) phase the sum of all costs (direct and indirect) of each cost object are calculated and the total cost is defined. (Bhimani & al. 2012, 345-348.)

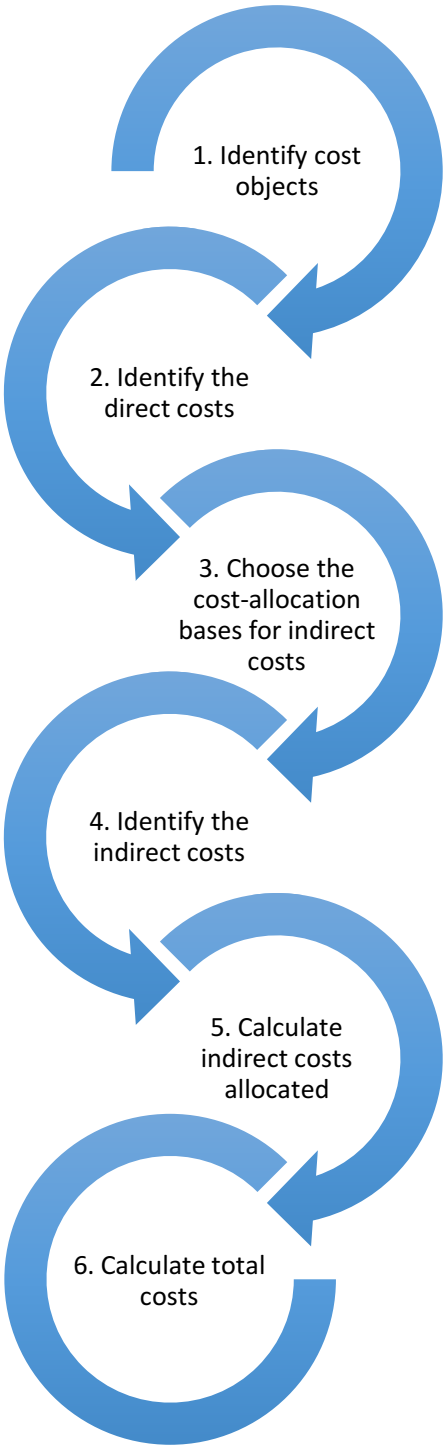

Figure 6. 7 steps of ABC costing (Reproduced from Bhimani & al. 2012, 345-348.)

Building and applying accurate ABC system requires well-structured cost accumulation, identification of major processes as well as deep inspection and auditing of the activities used. (Kaplan & Anderson 2007, 3-6.)

Choosing the proper allocation method for the profitability tool was an important task. As many of the unallocated indirect costs at PR-Cosmetic Oy were services and caused by certain activity,

the use of activity-based costing serves the purpose best. The activities used in the tool were selected in cooperation with the company management to create purposeful activities and make the evaluation of costs for each activity as easy as possible.

3.4.2 Activity-based management (ABM)

ABM refers to the managerial decisions and actions made based on information provided by activity-based costing. These decisions and actions are usually related to processes such as pricing and cost reduction but may as well help with improvement of processes as well as in customer portfolio management. (Bhimani & al. 2012, 351.)

PR-Cosmetic Oy can use the activity-based costing insight to further develop their existing processes. However, even more beneficial aspect of using activity-based costing will be related to the customer portfolio management. By identifying connections between incurred costs and certain customer specific purchasing habits as well as use of services can help PR-Cosmetic Oy's management to guide the behaviour of their customers to more desirable direction.

3.4.3 ABC in customer profitability

The allocation of costs related to many customer management operations requires some form of activity-based costing (ABC). By allocating these sales related activities to individual customers the company can attempt to modify and change the purchasing behavior of certain customers. The aim of ABC in customer profitability is to allocate these sales related costs to customers by their use of each activity. This gives great insight on the real profitability of each customer. (Smith & Dikolli 1995, 1-2)

By computing the total cost of each customer a company is actually able to determine the cost of serving each customer. After determining the most unprofitable and costly customer accounts, there are three general ways of improving the profitability of these accounts. The first method is to try to reduce the cost of serving that specific account. This often includes the use of process-improvement methodologies. The second method is to simply increase the price for higher total revenue. This, however, may cause some difficulties with customer relationships. The third and last method is to start offering the unprofitable account a tightened product-mix and try to eliminate unprofitable products. (Anderson 2011, 1-3.)

Figure 7 is a simplification of how by using ABC in customer profitability the allocation of costs happens in three simple steps. The first step is to target the costs to certain activities. After this the activities are used to divide the costs to specific customers based on the use of an activity.

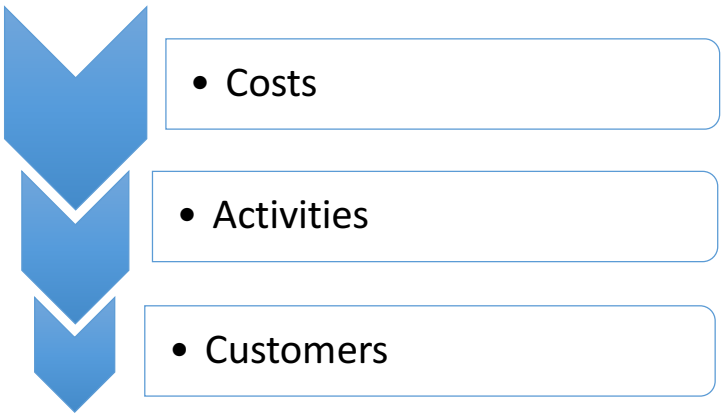

Figure 7. Cost allocation process with ABC in customer profitability

Even though the profitability tool offers in-depth insight on costs incurred by a customer, the data should be treated with certain caution. The estimation of costs of certain activity will greatly affect the calculation outcome and thus the data may not be 100% accurate. Also the reliability of the tracking of the use of activities weakens the reliability of the final results. However, as the same model and costs of activities are used for each customer, the tool will give relatively accurate data to compare customers with each other.

3.4.4 Customer cost hierarchy

Cost hierarchies are a way to categorize costs based on cost drivers. This gives clearer image on the effect of each function to the overall costs. In customer cost hierarchy costs can be divided into four different groups. These four groups; (1) customer output-unit-level costs, (2) customer batch-level costs, (3) customer-sustaining costs and (4) distribution-channel costs are explained in Table 2. (Bhimani & al. 2012, 153.)

1.	Customer output-unit-level costs	Resources used to sell a single unit to a customer
2.	Customer batch-level costs	Resources used to sell a batch of units to a customer
3.	Customer-sustaining costs	Resources used to sustain a customer, including for example customer support
4.	Distribution-channel costs	Resources used to maintain certain distribution channel

Table 2. (Reproduced from Bhimani & al. 2012, 391)

In this thesis the costs are allocated based on three different cost drivers. In the case of this thesis it doesn't serve any purpose to track single sold units, only the three latter drivers are used. The costs in the profitability tool's cost allocation section will be divided into customer batch-level costs, customer-sustaining costs and distribution-channel costs to further clarify the drivers of each cost. Although the first version of the profitability tool presented in this thesis only includes small set of activities, the drivers will help the commissioning company to place new or replace existing activities to the tool in the future.

The first cost driver group customer batch-level costs consist of two different cost activities; order processing and fast delivery. These costs are highly related to the order reception, order collecting and delivery. Customer-sustaining costs include following cost activities: sales visits, sales activities, training and education, and distribution-channel costs are related to the given marketing support.

3.5 Customer profitability and customer-profitability analysis (CPA)

To direct company resources and support to strategic customers, the company's management has to have a clear vision of the most profitable accounts. This requires customer-profitability analysis, a process of analyzing the revenues and costs of each customer account. (Bhimani & al. 2012, 390.)

Based on the well-known 80-20 rule, 80% of a business's revenue comes from 20% of customers. However when comparing customers, profitability should be the main focus and from that point of view the results are usually even more drastic. Based on a study of one company, conducted by Robyn Cooper and Robert Kaplan from Harvard University, 20% of a company's customers provided 225% of the profits, majority of the customers only more or less broke-even and 10% actually lost 125% of the profits. Despite the fact that the study was only made by monitoring one company, the results do give some indication regarding the importance of identifying the profitable and unprofitable customer accounts. (Huefner 2011, 111.)

Recognizing unprofitable customers is an important aspect of revenue management. By converting unprofitable customers to profitable ones or ultimately eliminating them entirely, a company can greatly increase its earned profits. (Huefner 2011, 111.)

There are various reasons why certain customer relationships are unprofitable. Reasons such as requested and provided extensive support, slow paying and negotiated price reductions lower the profitability of the relationship. By identifying the unprofitable customers and reasons behind the unprofitable relationship a company's management can make future decisions to improve the situation. (Huefner 2011, 111.)

It is important to notice that newly acquired customers are more likely to be unprofitable. Usually the sales efforts of acquiring a customer greatly exceed the earnings at the beginning. However, new customers should always be valued because of their growth and profit potential. (Kaplan & Atkinson 2015, 553)

Based on Smith and Dikolli, there are certain characteristics separating profitable and unprofitable customers. They have divided the characteristics into four different categories; purchasing patterns, delivery policy, accounting procedures and inventory holding (Table 3). Each category consists of characteristics and behaviours of unprofitable and profitable customers as well as the related expenses. In general the profitable customers make more profits while still spending less company resources. Profitable customers also have lesser need for customization and special attention. (Smith & Dikolli 1995, 4-5.)

	COST	**PROFITABLE CUSTOMERS**	**UNPROFITABLE CUSTOMERS**
PURCHASING PATTERNS			
	Discounts	None or low discounts	Discounts
	Cost of service to maintain products	Infrequent, successful ordering via telephone calls	Long delays in daily orders by telephone
	Sales support	Minimum visits	Frequent support in form of calls and visits
DELIVERY POLICY			
	Distribution	Simple and inexpensive	Complicated and expensive (long distances etc.)
	Shipping frequencies	Infrequent	Frequent deliveries
	Freight fleet requirements	No special requirements	Special requirements

ACCOUNTING PROCEDURES			
	Settlement discounts	Discounts in cash sales, if at all	Receives discounts
	Debt collecting	Pays on time	Pays late
	Order processing	Maintains regular orders	Immediate deliveries due to stockouts, complex order details
INVENTORY HOLDING			
	Inventory support	Predictable delivery and inventory requests	Unpredictable delivery times
	Distribution support	Collects sales orders	Requires free delivery

Table 3. Characteristics of an unprofitable customer (Modified from Smith & Dikolli 1995)

4 Customer profitability tool

The customer profitability tool presented in this thesis is designed using well-known managerial accounting theories and concepts but is highly customized to meet the commissioning company's needs. However, being built using universal accounting theories, the tool can easily be modified to be used in almost any company.

The tool is built so that only the necessary parts can be modified and updated by the commissioning company. This will ensure the tools proper function also in the future. The tool includes some empty fields which the commissioning company can use to input new information in the future. All the figures used to present and demonstrate the tool are hypothetical and are not based on any real data.

4.1 The tool structure

The tool is divided into three excel worksheets. Each sheet includes a part of the tool. The first two sheets are used to input data and the third sheet presents the outcomes of the profitability calculations. The tool is designed so that the data insertion from the commissioning company's reporting system is as convenient as possible and data can possibly be copied from a table to the tool.

4.2 Activities

Activities

Cost driver	Activity	Unit	Cost	
Customer-batch level costs	Order processing	*orders*	€20,00	per order
	Fast delivery	*orders*	€10,00	per delivery
Customer-sustaining costs	Sales visits (on-site training)	*days*	€300,00	per visit
	Sales activities (phone, f-to-f)	*hrs*	€30,00	per spent hour
	Training and education	*days*	€100,00	per training
	Payment reminder	*pcs*	€10,00	per reminder
Customer-distribution costs	Custom in-house Marketing material	*pcs*	€50,00	per marketing material
	Temporary staffing	*hrs*	€20,00	per hour

Figure 8. Activities section of the profitability tool

The first sheet of the tool is meant for inputting the activities used for the ABC-system cost allocation. As seen above in Figure 8, the activities are divided into different cost drivers with color coding. Each cost driver also consists of two empty fields for possible new identified activities.

4.3 Customer data

Customer data from the commissioning company's reporting system will be inserted into the second, customer data –sheet. Each column is reserved for one customer account and the data related to that specific account is to be filled below the account name.

Customer data				
CUSTOMER	Customer A		Customer B	
Customer since	12.3.2014		5.4.2003	
Revenues	€	30 000,00	€	23 400,00
Discounts Total	€	3 500,00	€	918,00
Returns Total	€	100,00	€	24,00
- Discount %		10 %		2 %
- Discount €	€	500,00	€	450,00
Direct costs				
Marketing materials	€	100,00		
Marketing support / Refund	€	200,00	€	760,00
Additional costs	€	300,00	€	400,00
Indirect costs (# of activities used)				
Order processing (orders)		15		8
Fast delivery (orders)		1		5
Sales visits (on-site training) (days)		3		1
Sales activities (phone, f-to-f) (hrs)		7		15
Training and education (days)		19		14
Payment reminder (pcs)		3		4
Custom in-house Marketing material (pcs)		1		
Temporary staffing (hrs)		4		8

Figure 9. Customer data section of the profitability tool

The fields to be filled in by the commissioning company are, as in Figure 9 marked with a white background and all colored cells are locked for the commissioning company's convenience.

4.4 Profitability

The last sheet of the tool provides insight to the profitability figures. This sheet is completely locked and no figures are to be inserted to this sheet. This sheet will provide all the necessary information for determining the profitability of each customer account, reasons behind profitability of unprofitability of a specific account as well as comparable percentage figures by which to compare customers with each other. The sheet is divided into Figure 10 and Figure 11 presented below.

Figure 10 represents the upper half of the Profitability-sheet. It provides the gross profit as well as gross margin. The gross margin is formatted to choose red or green color automatically based on if the figure is below or above the average.

Profitability		
CUSTOMER	Customer A	Customer B
Customer since	12.3.2014	5.4.2003
Revenues	€ 30 000,00	€ 23 400,00
Returns	€ 100,00	€ 24,00
Discounts	€ 3 500,00	€ 918,00
Net Sales	€ 26 500,00	€ 22 482,00
COGS	€ 21 000,00	€ 16 380,00
Gross Profit	**€ 5 500,00**	**€ 6 102,00**
Gross Margin %	**21 %**	**27 %**

Figure 10. First part of profitability section of the profitability tool

Figure 11 is a breakdown of costs which can be used to examine the customer accounts' cost drivers. The activities are color coded based on the cost driver groups presented in chapter 4.2. The costs are calculated by multiplying the cost of each activity with the usage.

Lastly, the profitability-sheet will provide the operating profit and operating margin of each customer account. These figures will give the absolute insight on the profitability of each customer. Both operating profit and operating margin are formatted to visualize the results with specific colors. On operating profit, positive values will appear green whereas negative values will appear

red. Operating margin will use green and red formatting based on the below and above average rule, marking below average operating margin figures red and above average figures green.

Direct costs (Total)	€	600,00	€	1 160,00
Marketing materials	€	100,00		
Marketing support / Refund	€	200,00	€	760,00
Additional costs	€	300,00	€	400,00
Indirect costs *(activities)* (Total)	€	3 480,00	€	2 560,00
Order processing (orders)	€	300,00	€	160,00
Fast delivery (orders)	€	10,00	€	50,00
Sales visits (on-site training) (days)	€	900,00	€	300,00
Sales activities (phone, f-to-f) (hrs)	€	210,00	€	450,00
Training and education (days)	€	1 900,00	€	1 400,00
Payment reminder (pcs)	€	30,00	€	40,00
Custom in-house Marketing material (p	€	50,00		
Temporary staffing (hrs)	€	80,00	€	160,00
Operating profit	€	4 080,00	€	5 142,00
Operating margin %		15 %		23 %

Figure 11. Latter part of profitability section of the profitability tool

5 Findings and recommendations

This chapter covers the findings and recommendations made by the author based on the knowledge gathered during the thesis process.

5.1 Product assessment

The product, customer profitability tool, provides the commissioning company the valuable possibility to properly analyze the profitability of their customer base. Relying on well-known managerial accounting theories the tool gives reliable results on profitability. The tool is a simplified solution to analyze customer accounts. Simplicity played a major role in designing the tool as to provide the company a tool it can actually utilize in daily operations.

5.2 Process assessment

To build a comprehensive and reliable theoretical framework for the purpose of this thesis, the author has extensively studied relevant managerial accounting theories. The material studied and used as a reference for this thesis consist of both basic managerial account theories and more specialized theories of customer profitability.

To ensure the confidentiality, no actual financial figures from PR-Cosmetic Oy are shared in this thesis. All data provided for designing and testing the tool has been handled in a secure manner.

The thesis process followed the project task plan presented on the first chapter. During the process the author learned to apply to practice the accounting theories presented in the specialization studies. Also the general knowledge on customer profitability and costing methods was deepened.

5.3 Further development of the profitability tool

The customer profitability tool presented in this thesis was designed and built for the needs of PR-Cosmetic Oy based on the company needs and information gathered by the author. However, it is strongly recommended for the commissioning company to further fine-tune the values and measured activities after gathering some experience on using the tool. The accuracy and credibility of the tool increases over time as the data gathered becomes more reliable and accurate.

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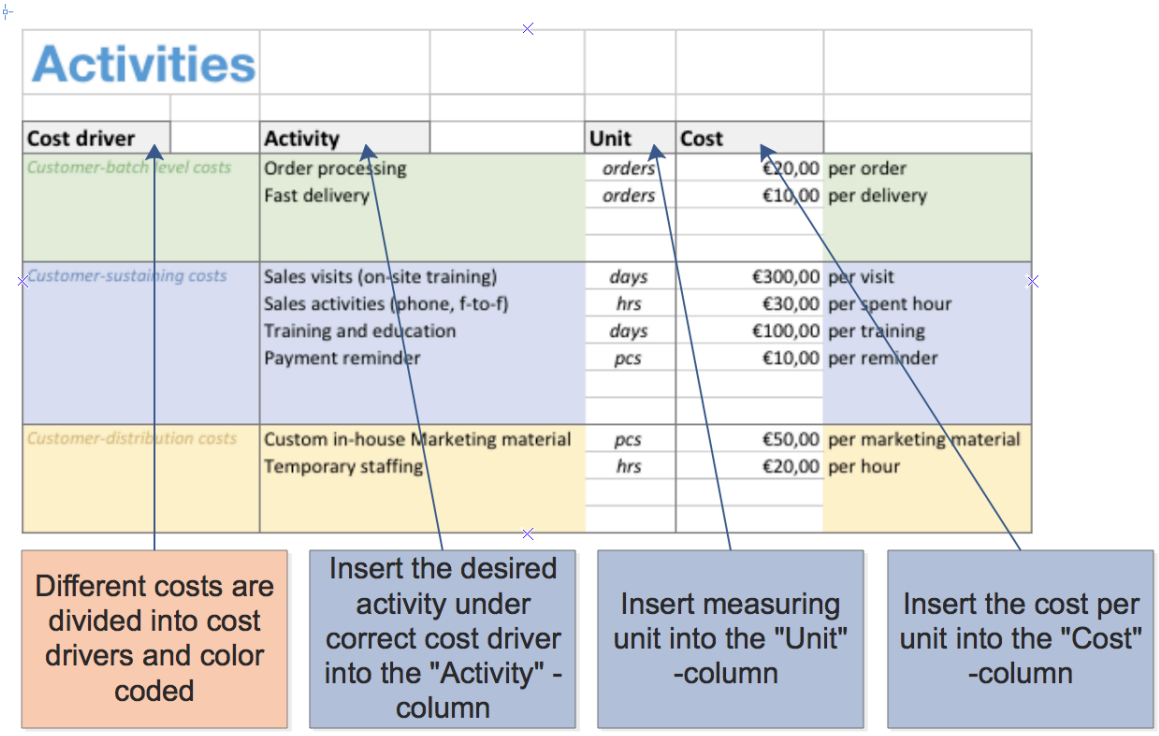
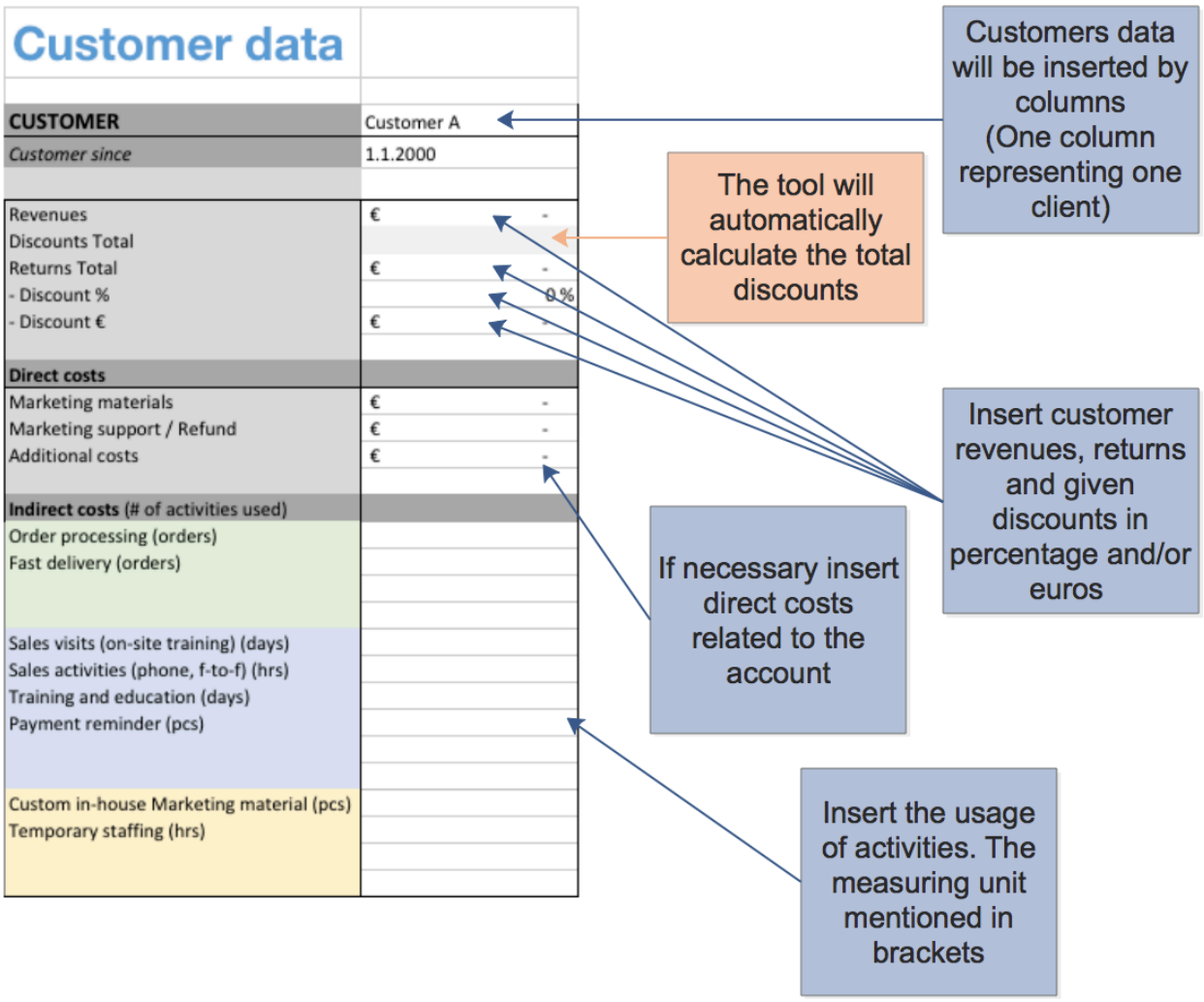
Appendix 1. User manual

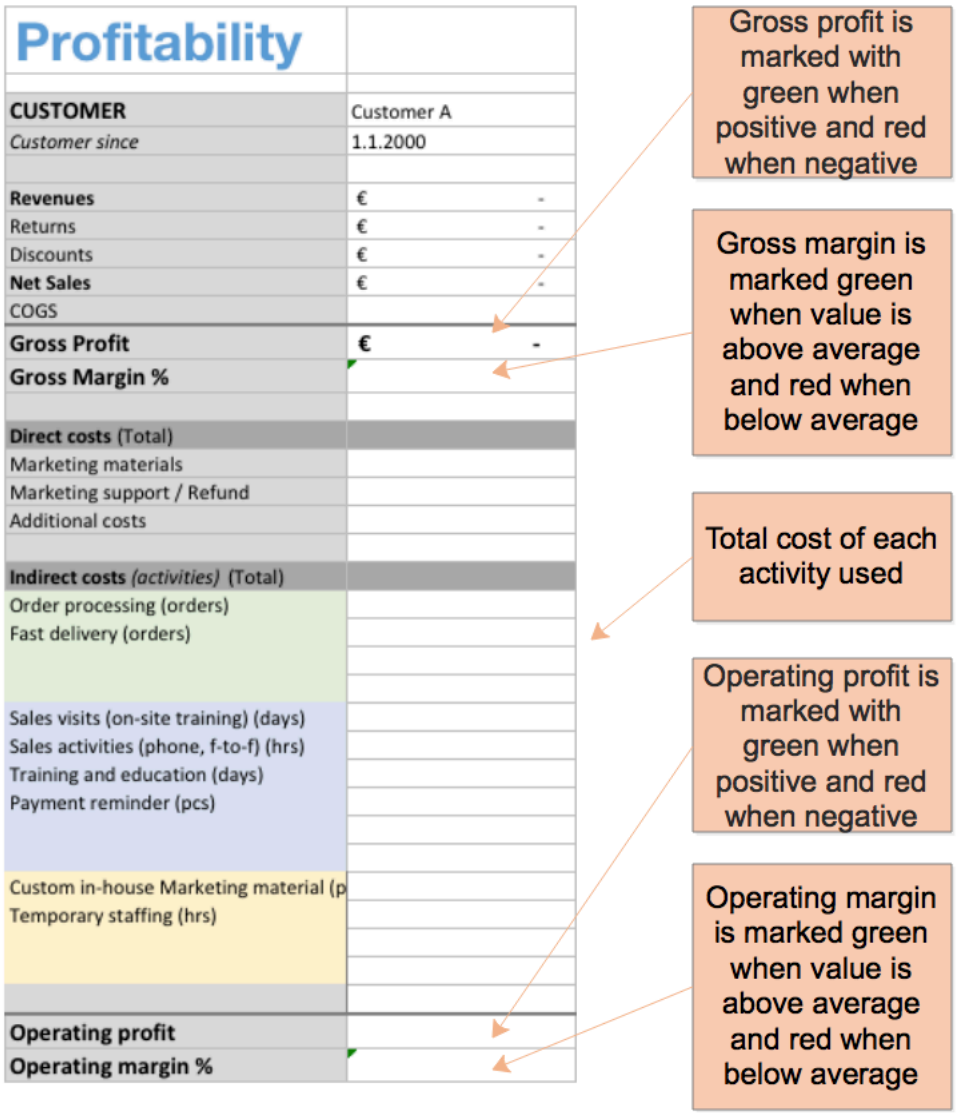
This user manual is built to guide the usage of the customer profitability tool. The tool is covered sheet by sheet and instructions are marked with orange and blue boxes.

The cells requiring manual input can be found in the *Activity* and *Customer Data* –sheets and are marked with white color. The only exception are the empty fields in the activity column which are marked with the specific color based on the cost driver. To avoid mistakes, only the manual input cells are left editable and all of the rest are locked. The password for editing the locked cells will be provided upon request.

In this user manual the **Blue** instruction boxes will mark the columns and fields where to add data, and **Orange** boxes will represent interpretations and explanations.




Customer data
CUSTOMER
Customer A
Customer since
1.1.2000
Revenues
Discounts Total
Returns Total
- Discount %
- Discount €
Direct costs
Marketing materials
Marketing support / Refund
Additional costs
Indirect costs (# of activities used)
Order processing (orders)
Fast delivery (orders)
Sales visits (on-site training) (days)
Sales activities (phone, f-to-f) (hrs)
Training and education (days)
Payment reminder (pcs)
Custom in-house Marketing material (pcs)
Temporary staffing (hrs)
Customers data will be inserted by columns (One column representing one client)
The tool will automatically calculate the total discounts
Insert customer revenues, returns and given discounts in percentage and/or euros
If necessary insert direct costs related to the account
Insert the usage of activities. The measuring unit mentioned in brackets


Profitability
CUSTOMER
Customer A
Customer since
1.1.2000
Revenues
Returns
Discounts
Net Sales
COGS
Gross Profit
Gross Margin %
Direct costs (Total)
Marketing materials
Marketing support / Refund
Additional costs
Indirect costs (activities) (Total)
Order processing (orders)
Fast delivery (orders)
Sales visits (on-site training) (days)
Sales activities (phone, f-to-f) (hrs)
Training and education (days)
Payment reminder (pcs)
Custom in-house Marketing material (p
Temporary staffing (hrs)
Operating profit
Operating margin %
Gross profit is marked with green when positive and red when negative
Gross margin is marked green when value is above average and red when below average
Total cost of each activity used
Operating profit is marked with green when positive and red when negative
Operating margin is marked green when value is above average and red when below average

Appendix 2. Project tasks

Project Task		Theoretical Framework	Method	Output
1	Define the outline and focus of the project thesis		Qualitative interview	Outline of the thesis
2	Build the theory base for the tool	Managerial accounting theories, concepts and academic material	Desktop Research	Theoretical framework and models
3	Design the customer account profitability tool	Theories and company data		The customer account profitability tool
4	Introduce the beta tool for the commissioning company	Profitability tool	Qualitative interview / Feedback	Feedback
5	Based on the feedback adjust the tool and design the user manual	Provided feedback		Finalized tool
6	Analyse the results and give recommendations	The thesis		Recommendations and finalized thesis

Appendix 3. Company Interview

Questions asked in briefing interview with Sirpa Alanko-Pöllänen (CEO) & Kirsti Randström (CFO) on 22 February 2016:

- What are your current methods of analyzing customer profitability?
- What kind of data you gather regarding your customers?
- What is your current cost structure?
- What specific information regarding customer profitability would be most beneficial for your company?
- What is your level of excel expertice and what are your capabilities to utilize excel tool in calculating customer profitability?
- What are the main activities related to serving customers?
- What kind of direct costs you have?